Application No.: 10/549,737 Docket No.: REGIM 3.3-065

IN THE ABSTRACT

Methods and apparatus for assigning weighting coefficients to measurements of a succession of stars acquired by a star sensor connected to a client device in order to determine a spatial orientation, characterized in that higher or lower preference is given to refreshment of the positions of measurements with the highest weights and/or stars on which these measurements are made by the star sensor and/or its client device, so as to displace part of the power of the error associated with the set of star measurements within the frequency spectrum.